Psychosocial strategies for physiotherapy: A qualitative examination of physiotherapists' reported training preferences.

Christina DRIVER[a] BSc Hons, PGrad Dip, PhD, Geoff P LOVELL[a,b] BSc Hons, PhD, MAPS SFHEA, Florin OPRESCU[c] MPH, MBA, MD, PhD.

a. School of Social Sciences, University of the Sunshine Coast, Sippy Downs Drive, Queensland, Australia.
b. Department of Sport, Hartpury University, Hartpury House, Gloucester, GL19 3BE, UK. glovell@usc.edu.au
c. School of Health and Sport Science, University of the Sunshine Coast, Sippy Downs Drive, Queensland, Australia. foprescu@usc.edu.au.

Conflict of interest

The authors have no conflict of interest to report.

Ethical Approval

Ethical approval has been granted by the University of the Sunshine Coast Human Research Ethics Committee.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Authorship:

All authors provided concept/idea/research design and writing. Mrs Driver provided data collection. All authors were involved in data analysis as outlined in our methods section. All authors have approved the final manuscript.

Abstract

Physiotherapists report using a range of psychosocial strategies in their practice, yet, barriers to implementation include lack of time, limited knowledge, and minimal training. This research aimed to establish what training physiotherapists have had with regards to psychosocial strategies, why they think they would benefit from more training, what training they want, and delivery preferences. Content analysis of answers to four open-ended, online survey questions collected from Australian physiotherapists (N = 208) was conducted. Physiotherapists reported having minimal training specific to psychosocial strategies. Physiotherapists reported wanting training in assessment and management of psychosocial issues, and practical application of specific psychosocial strategies. Didactic and interactive training delivered by experts who understand the psychosocial needs of their patients, and the constraints of physiotherapy practice was preferred. These findings suggest that training in psychosocial strategies at undergraduate level and continued professional development is necessary. Specifically, training in assessment and management of psychosocial factors, and referral processes is warranted, and should be applicable and appropriate for rehabilitation settings. Training should be both didactic and interactive as outlined in the proposed framework.

Keywords: Professional education, physical therapists, behavioural medicine, continued professional development, interdisciplinary education, allied health.

1 INTRODUCTION

Physiotherapists report using a range of psychosocial strategies in their practice, and perceive such strategies to be beneficial for managing psychosocial factors that can hinder rehabilitation outcomes (Driver, Oprescu, & Lovell, 2020). Psychosocial strategies refer to treatment approaches that include cognitive, behavioural and interpersonal methods (Barlow & Durand, 2015). Physiotherapists report using strategies such as goal setting, positive reinforcement, cognitive behavioural approaches, relaxation, and motivational interviewing (Driver, Lovell, & Oprescu, 2019a). Physiotherapists have described improved needs assessment and reduced therapist load as practitioner benefits of utilising psychosocial strategies in rehabilitation (Driver et al., 2020). Further, physiotherapists reported perceived patient benefits of enhanced rehabilitation experience and patient wellbeing, improvement of psychosocial responses, and enriched therapeutic alliance (Driver et al., 2020).

Nonetheless, barriers to implementation of psychosocial approaches in physiotherapy are reported to include lack of time, limited knowledge and confidence, minimal training at undergraduate level, and limited continued professional development (CPD) opportunities (Driver, Kean, Oprescu, & Lovell, 2017; Driver et al., 2020; Man, Kumar, Jones, & Edwards, 2019). Although Australian physiotherapists reported it important to have more training in psychosocial strategies (Driver et al., 2019a), their training preferences are not well understood. Additionally, UK-based research (Denneny et al., 2019) suggested there is a gap in current psychologically informed CPD training and delivery for physiotherapists, particularly where psychological assistance or interdisciplinary collaboration are not available, and this needs to be addressed.

1.1 Background

With various aspects of physiotherapy evolving (French & Dowds, 2008), including the acknowledged shift from a biomedical to a more biopsychosocial model (Driver, Oprescu, & Lovell, 2019b), it is critical to support physiotherapists to remain up to date with practice advancements though CPD (Austin & Graber, 2007). In most jurisdictions, physiotherapy practice is regulated as part of ongoing registration requirements, and physiotherapists are expected to review their skills and knowledge regularly to remain current in their practice. The Physiotherapy Board of Australia (2015) states that physiotherapists must "participate in activities that contribute directly to maintaining and improving competence in their chosen scope of practice" (p2). Therefore, engaging in CPD opportunities is fundamental to ensuring maintained proficiency (French & Dowds, 2008).When designing and delivering effective CPD programs, it is paramount to ensure that updated knowledge is translated into practice (Maher et al., 2018), and is based on the clinical demands of practitioners (French & Dowds, 2008; Hancox, 2002).

Although employers, universities, and professional bodies are responsible for providing opportunities for CPD (Haywood, Pain, Ryan, & Adams, 2012), engagement in CPD requires individual practitioners to take responsibility for identifying and evaluating their own learning experiences (Hancox, 2002). If CPD is contextually pertinent and grounded in practitioner demands, then their knowledge, attitudes and skills are enhanced, positive changes to practitioner behaviour occur, and improved healthcare outcomes for patients are evident (Robertson, Umble, & Cervero, 2003).

Early research in Australia recommended that when dealing with athletic injuries, there was a need to provide training for sport physiotherapists on the

psychological impact of sport injury, but that clinical experience was necessary first (Gordon, Potter & Ford 1998). Gordon et al. (1998) recommended training in psychosocial based skills including communication, goal setting, coping strategies, positive self-talk, cognitive restructuring, social support, how to manage difficult situations, and referral skills. Similarly, Heaney, Walker, Green, and Rostron (2015) in a review of psychology content for sports injury rehabilitation professionals, proposed that training packages should be short and flexible. In a further study, Arvinen-Barrow, Hemmings, Becker, and Booth (2008), reported that sports physiotherapists wanted training in psychosocial strategies to be delivered via workshops, seminars and intense training weekends, with the addition of mentoring and coaching.

A limitation of the aforementioned studies is their specific focus on sports physiotherapists only. Recent research highlights the importance of physiotherapists practicing outside of sport settings also supporting their patients through the use of psychosocial strategies (Driver et al., 2019a). Additionally, although training in psychosocial strategies has been acknowledged as relevant for physiotherapists in Australia since the 1990s, the findings from Driver et al., (2019a) suggest that limited action has transpired to address this issue for initial physiotherapy training or CPD. Furthermore, in undergraduate physiotherapy programs in the UK, it has been established that there are no standardised topics pertaining to psychology based curricular relevant to physiotherapy practice (Alexanders & Douglas, 2016). Together, this suggests more research is warranted to evaluate existing undergraduate physiotherapy programs in Australia, and how best to approach CPD for physiotherapists currently practicing across a range of settings, who may have had minimal training in the use of psychosocial strategies.

1.2 Study aims

Our previous research found that Australian physiotherapists reported a lack of knowledge and confidence in the use psychosocial strategies, and that is was important and beneficial to have further training (blinded). The current study aimed to expand on these findings, providing an in-depth investigation into physiotherapists' training desires, perceived benefits of more training and delivery preferences. Additionally, research has not considered in detail, what training Australian physiotherapists have had, specifically regarding psychosocial strategies. This information may help identify gaps in undergraduate physiotherapy programs and may shed light on how CPD training providers can best support practicing physiotherapists in their endeavour for more knowledge. This is the first study to offer this level of detail in Australia, and with physiotherapists from a range of practice settings.

Four research questions were posed:

1. What training or education do Australian physiotherapists report they have had in psychosocial strategies?
2. Why do physiotherapists think they would benefit from more training in psychosocial strategies?
3. What training do physiotherapists want in psychosocial strategies?
4. What are physiotherapists preferred delivery methods for training?

2 METHODS

2.1 Design

This study was part of a wider series of investigations contained within a cross-sectional, concurrent, mixed methods online survey. The survey was designed

by a team including a registered and research active psychologist, and specialists in health and sport science; with extensive experience of survey-based research and multidisciplinary practice in the areas of disability and rehabilitation. Quantitative results which examined physiotherapists' views, perceived knowledge and reported use of psychosocial strategies are reported elsewhere (blinded). The qualitative component included open-ended questions to allow more individual interpretations and triangulation of the topic under study. The questions were formulated based on a systematic review of the literature, which identified gaps in research (blinded). This study reports on data collected via four open-ended questions that allowed participants unlimited textual responses. The online setting permitted participants to communicate a viewpoint without influence from the researchers. Participants were asked to report what training or education they have had with regards to psychosocial strategies, why they think they would benefit from additional training in this area, what training they would like, and their preferred delivery methods.

2.2 Ethical considerations

Consent was obtained prior to commencement of the study, and participation was voluntary and anonymous. The survey was conducted via SurveyMonkey and was granted institutional ethical approval (blinded for review).

2.3 Participants

Participants were recruited via adverts in Australian physiotherapy professional publications, on the Australian Physiotherapy Association professional pages, on two social media sites (Facebook and Twitter) and via emails to clinics, hospitals, and practices listed publicly. Adverts were repeated regularly during recruitment, and to minimise selection bias and maximise participation (Muñoz-Leiva, Sánchez-Fernández, Montoro-Ríos, & Ibáñez-Zapata, 2010), respondents

could enter a prize draw at the culmination of the survey. Eligible participants were qualified Australian physiotherapists who had practiced in the previous two years.

2.3 Analysis

The responses were analysed using content analysis due to the descriptive and individualised nature of the textual responses (Hsieh & Shannon, 2005; White & Marsh, 2006). Content analysis enables inductive exploration, interpretation and understanding of smaller quantities of textual data, to their context, where the research questions guide examination, but latent themes can surface during analysis (Krippendorff, 2013; White & Marsh, 2006).

The first phase consisted of preparing the textual data for analysis. The first author read the entire data set repeatedly. This phase facilitates immersion in the data, and enables familiarity and understanding of the textual responses (Elo & Kyngäs, 2008). Constant comparison was then conducted, chunking the text into smaller segments (Leech & Onwuegbuzie, 2007), which were subsequently given descriptive codes in the organisation phase (Elo & Kyngäs, 2008). Subsequently, each segment of new text was compared to previously coded data and designated to an existing code or specified as a new descriptive code. Codes were then grouped and organised into categories (Elo & Kyngäs, 2008). Dependability of qualitative results can be enhanced through the inclusion of more than one researcher in the analysis (Graneheim, Lindgren, & Lundman, 2017). Elo et al. (2014) suggested that a single researcher should be responsible for initial analysis, which is subsequently assessed and discussed among all authors, accounting for potential differing interpretations. Therefore, to enhance rigour, objectivity and dependability, analysis methods and results were appraised by the other two authors, verifying the consistency of the results of the analysis to the raw data. Evaluation and refinement of categories

continued until agreement was reached amongst all authors. Credibility was assured by finding participants who were appropriate for the phenomenon under study (Elo et al., 2014; Graneheim et al., 2017), and it is suggested that a sufficient number of participants is necessary to improve transferability and to cover variations and diversity in responses (Graneheim et al., 2017). As specified in the recruitment strategies for this study, participants were appropriate for investigating the questions related to this research, and over 200 respondents provided textual data for the open-ended questions. To further enhance transferability, providing characteristics of the participants without compromising anonymity is suggested (Elo et al., 2014). For this reason, practice setting, age and gender were also reported alongside any quotes included in the results sections.

Frequencies can be used to discover meaningful data in content analysis (Vaismoradi, Turunen & Bondas, 2013). Therefore, quantifying of categories was completed using SPSS to provide numerical representation of the frequency of the categories (version 24, IBM Corporation, Chicago, IL, USA). A summary of the content analysis is described, tables are presented to show frequency of categories, and to authenticate the results, examples of textual comments are included.

3 RESULTS

3.1 Participants

Respondents (N=208) provided textual data for the four open-ended questions. Demographic data collected indicated that 67.5% of the respondents were female, age ranged from 21 to over 65 years (M = 36.2, SD = 11.1), and years of experience ranged from one to over 40 years (M = 13.5 years, SD = 11.2). The most common reported qualification level was Undergraduate (35.7%), then Masters (28.4%),

Graduate Diploma (11.5%), Honours (6.8%), Doctorate (1.9%), missing (1.9%) and Diploma (1.4%).

3.2 Textual responses

Textual responses ranged from one word, to several sentences and numerous participants provided several distinct comments within one response. Therefore, constant comparison resulted in a total of 434 separate comments for the first question (mean number of words per response: 14.6, response length raged from 1-55 words) 339 for the second (mean number of words per response: 15.8, response length ranged from 1-194 words), 262 for the third (mean number of words per response: 10.5, response length raged from 1-58 words) and 404 for the fourth (mean number of words per response: 6.8, response length raged from 1-46 words).

3.3 Training and education in psychosocial strategies

3.3.1 Formal education

Formal education was identified most often, but respondents reported only one or two introductory psychology courses as part of undergraduate physiotherapy courses (Table 1). These comments were evident in those who were younger and had studied more recently, and in those who had studied many years previously. Only one respondent had a separate undergraduate degree in psychology.

- Limited psych training during undergraduate degree - one unit of general psych rather than psych interventions for physio. (Participant; [P] 145, Male [M], Age: 26, private practice, sports and musculoskeletal)
- Nothing since basic psych subjects during my training in 1975! (P108, Female [F], 60, private, community)

Comments referring to psychology subjects as part of a postgraduate physiotherapy qualification were also apparent. Additionally, three respondents reported completing postgraduate psychology courses such as a graduate diploma in psychology. Other formal courses included a mental health awareness course, and a basic counselling certificate. Thirty-eight respondents referred to none or minimal formal training.

- Minimal training at university. Nothing post-grad. (P178, F, 26, private practice)

3.3.2 Informal education

Informal education was described, such as in-service training, self-guided study, on the job learning, discussion with a psychologist, observational learning of experienced colleagues, multidisciplinary environments, and life experience.

- Self-research as part of a global knowledge of all aspects of health. (P63, F, 66, general, paediatrics, and geriatrics)
- On the job training, ad hoc working alongside and observing other experienced clinicians. (P167, F, 52, public, aged care, neuro rehabilitation)
- In service training at work, case by case discussions with psychology staff on interventions to try. (P158, F, 38, public hospital)

3.3.3 Strategy specific

Motivational interviewing, goal setting, pain management strategies, cognitive behavioural approaches, and relaxation were most commonly stated. Less frequently mentioned strategies included imagery and mindfulness.

Key categories	Sub-categories	Examples of codes
Formal education 135 (31.1%)	Undergraduate study	Introductory psychology at undergraduate Separate psychology degree
	Postgraduate	Part of postgraduate physiotherapy course Postgraduate psychology-based courses
	Other formal courses	Mental health Counselling
Informal education 124 (28.6%)	Workplace based	Inservice training On the job learning Observational learning of experienced colleagues Discussions with psychologists Multidisciplinary environments
	Individual based	Life experience Self-guided study
Strategy specific 137 (31.6%)		Motivational interviewing Goal setting Pain management strategies Cognitive behavioural approaches Relaxation Imagery Mindfulness Other
No or minimal training 38 (8.8 %)		Nil, minimal

Table 1. Reported training in psychosocial strategies

3.4 Perceived benefits from more training in psychosocial strategies?

Respondents reported perceived benefits such as better practice, increased knowledge, patients benefits, improved management of psychosocial issues, and effective assessment of psychosocial factors (Table 2).

3.4.1 Better practice

Respondents described better practice such as having applied skills, more confidence, and more effective use of psychosocial strategies, as well as having the ability to incorporate strategies efficiently into daily practice.

- I feel that I would benefit from more training as an increased confidence, understanding and ability to perform a strategy would be allow me to incorporate it effectively into daily practice. (P47, F, 24, public health)

3.4.2 Increased knowledge

Increased knowledge was apparent in the textual data, with comments referring to; continued learning, making informed decisions about using psychosocial strategies,

filling knowledge gaps from lack of training, and ensuring practice evolves with current knowledge.

- We can all benefit from more training! Life-long learning is essential for practice to evolve with current trends. (P25, F, 57, women's health)
- I would benefit- it was not a part of my training when I completed my under-graduate degree (1999) and it is the biggest change that I have noticed in the past decade of practice. (P4, M, 36, sports)
- Being able to make more informed decisions on when most useful - Clinical reasoning. (P93, M, 34, sports, community rehabilitation post-acute)

3.4.3 Patient benefits

Physiotherapists perceived that training in psychosocial strategies may help improve outcomes for their patients, enable them to provide biopsychosocial oriented care, help them engage patients in rehabilitation, and improve therapeutic alliance.

- I believe we would benefit from more training; we could use various tools to achieve the best outcomes with our patients, without relying on another discipline, which isn't always readily available. (P8, F, 32, aged care and rehabilitation - musculoskeletal and amputees)
- Would definitely benefit. It would help many more of my patients get better quicker and give me the ability to have more of a biopsychosocial approach. (P119, F, 32, Private musculoskeletal, advanced pain)
- A lot of my patients' outcomes would be enhanced with psychological strategies as I would understand and communicate with my clients better, be able to engage them better and I strongly believe that physical performance is strongly related to a healthy and strong mind. (P154, F, 31, public, neurological, spinal injuries unit)

3.4.4 Improved assessment and management

Physiotherapists outlined they frequently encounter patients with psychosocial responses, and perceived that training would enable improved management of psychosocial factors.

- See a lot of patients with chronic pain as part of my case load. Invariably a significant element of their presentation is psychosocial. The more skills I have in this area the better my management would be. (P54, M, 33, musculoskeletal, outpatients, private and public)

Respondents perceived that training in psychosocial strategies may facilitate improved assessment and screening of psychosocial issues and help them identify when to refer a patient for specialised psychological support.

- I would benefit, even if it is just to identify patients to refer on for further psychology assessment and management - so patients get the treatment they need. (P109, M, 43, musculoskeletal outpatients, advanced practice clinics)

Fifteen physiotherapists commented they would not benefit from further training, or would not want in depth training, citing reasons such as already knowing a lot about psychosocial strategies, and scope of practice.

- I wouldn't benefit from in depth study as I feel it is more appropriate to refer to a psychologist for patients with several yellow flags and/or suicidal thoughts. (P23, F, 33, private practice)

Key categories	Sub-categories	Examples of Codes
Better practice 101 (29.8%)	Applied skills	Practice, refine and reinforce skills Have a range of skills to offer Increase applied ability of skills
	More confidence	Feel more confident
	More effective use of psychosocial strategies Incorporate into daily practice	So can target specific issues Appropriate use of specific strategies More adaptable for different client groups
		Apply in PT session more effectively
Increased knowledge 73 (21.5%)		Continued learning Able to make informed decisions about using psychosocial strategies Fill knowledge gaps from lack of training Practice evolving with current knowledge
Patient benefits 60 (17.7%)	Provide biopsychosocial orientated care	Holistic treatment of patients Help patients understand mind/body connection
	Help engage patients in rehabilitation	Help motivate patients Optimise patient engagement
	Improved outcomes	Improved psychosocial outcomes Better overall recovery
	Improve therapeutic alliance	Better understand patient perspective Build better rapport and communication
Improved management of psychosocial issues 55 (16.2%)	More treatment ideas for complex patients	Help patients move through stages of change Help patients self-manage Help more than just physical barriers
Improved assessment of psychosocial factors 35 (10.3%)	Better screening	Know when to refer
Would not benefit 15 (4.4%)		Not benefit – already know a lot Scope of practice concerns Prefer to refer

Table 2. Perceived benefits of training in psychosocial strategies

3.5 Training desires

Strategy specific training, practical application of strategies, knowledge of strategies specifically for physiotherapy, and assessment and management of psychosocial issues for rehabilitation were apparent in the textual responses (Table 3).

3.5.1 Strategy specific

Commonly stated strategies were cognitive behavioural approaches, motivational interviewing, imagery, goal setting, relaxation, and coping strategies. Other lesser-mentioned strategies included, mindfulness, positive self-talk, and counselling skills.

3.5.2 Practical application

Practical application of psychosocial strategies emerged from the data, as many respondents stated wanting hands on learning, and how to apply such strategies within a rehabilitation setting.

- More practical, rather than just sitting and reading or being spoken at, seeing it put into action and how it works. (P73, M, 27, sports, musculoskeletal)
- Practical skills training relevant to rehabilitation practice. (P132, F, 33, public health, spinal cord injury rehabilitation)

3.5.3 Relevant to physiotherapy practice

Knowledge of psychosocial strategies was focussed on enhancing understanding of psychosocial strategies specific and relevant to physiotherapy practice.

- Physio-specific psychology education. (P126, M, 54, musculoskeletal and paediatrics)
- …learning about some psychological strategies that are useful to physiotherapists. (P28, M, 27, private inpatients and outpatients)

3.5.4 Assessment and management of psychosocial issues for rehabilitation

Physiotherapists expressed a desire for more training in the assessment of psychosocial factors and referral processes for further psychological support.

- Basic psychological screening techniques/methods - would make identification of needs easier, therefore referral to psych services much more timely. (P171, M, 28, public, community rehab, neuro)
- Outline of common psychological presentations/issues, assessment, what is within our scope vs. who needs referral. (P158, F, 38, public hospital)

Physiotherapists conveyed wanting training in how to manage psychosocial factors in general, such as dealing with fear, anxiety, pain, and complex patients.

- …how to change a stressed & negatively thinking client into a positive person. (P62, F, 48, private practice, general and sports)
- More training in the management of anxiety, specifically in relation to falls. (P10, F, 27, public neurological, geriatric and rehabilitation)

- Ongoing training around the current thoughts in managing those with chronic persistent pain, these by far are the most challenging clients to work with. (P57, F, 40, public hospital)

Four respondents disclosed they did not want further training or was not a priority.

Key categories	Sub-categories	Examples of Codes
Strategy specific 139 (53.1%)		Cognitive behavioural approaches Motivational interviewing Imagery Goal setting Relaxation Coping strategies Mindfulness Positive self-talk Counselling skills
Practical application of psychosocial approaches 38 (14.5%)		Hands on learning How to apply within a rehabilitation setting
Knowledge of psychosocial strategies specific to physiotherapy practice 33 (12.6%)		Enhance understanding of physio-specific psychosocial strategies
Assessment of psychosocial issues 29 (11.1%)		Assessment Referral process
Management of psychosocial issues for rehabilitation 19 (7.2%)		Pain Fear Anxiety Complex patients
Not want training 4 (1.5%)		Not a priority

Table 3. Physiotherapists training preferences

3.6 Preferred delivery methods

3.6.1 Didactic and interactive

Two main delivery methods emerged from the responses: didactic, which included online/web based, formal, readings and lectures; and interactive, which included practical workshops, case studies, and video/real-life demonstrations.

Sixty-six respondents expressed a preference for online/web-based theory, alongside practical application in workshops (Table 4).

- I think a web-based component with readings, evidence and written activities to set the scene, followed up with a problem-solving, hands-on workshop… (P154, F, 31, public neurological and spinal injuries unit)
- Online is convenient… but also workshops would be helpful to share and discuss ideas with others. (P81, F, 54, public hospital, musculoskeletal outpatient setting)
- Theoretical knowledge either web based or workshops, informal sessions also to allow practical application of particular psychosocial interventions. (P 98, F, 27, public, community health and hospital)

3.6.2 Delivered by experts

Physiotherapists outlined wanting training delivered by practitioners experienced in the use of psychosocial strategies specific to a rehabilitation setting.

- We are generally not well trained with this as physios, most training comes from psychologists without understanding of physiotherapy. Someone who understands both and we can relate to would be great. (P110, M, 25, sports)
- Patient presentations at conferences by experienced practitioners are fantastic, they make the interventions practical and relevant to physios. (P107, F, 54, private practice, musculoskeletal)

Key categories	Sub-categories	Examples of Codes
Didactic 174 (43.1%)		Online modules Webinars Podcasts Readings Online lectures
Interactive 142 (35.1%)	Practical learning	Workshops Real patients/case studies Face to face/one on one Videos/demos
Didactic and interactive combined 66 (16.3%)		Online modules and interactive practical workshops
Delivered by experts 22 (5.4%)		Psych/physio delivered APA delivered

Table 4. Delivery preferences

4 DISCUSSION

This study provides novel information concerning Australian physiotherapists' reported training preferences regarding psychosocial strategies for practice, and therefore has implications for learning and teaching. We established that many physiotherapists in Australia report minimal training in psychosocial strategies, citing only a "couple" of general undergraduate introductory psychology. The reported inclusion of introductory psychology courses within undergraduate physiotherapy courses in Australia, illustrates there is an acknowledgement in the profession that psychology knowledge is important for practice. Yet, responses from physiotherapists in this study may suggest that current levels of undergraduate psychology education are perceived as insufficient to equip physiotherapists with practical skills to effectively implement psychosocial strategies in their practice. O'Sullivan et al. (2018) recommended that to effectively apply cognitive behavioural approaches, physiotherapists need an understanding of foundational psychology and neuroscience. Taken together, this indicates that the inclusion of relevant physiotherapy specific psychological knowledge may be preferable at an undergraduate level, as opposed to general introductory psychology. Physiotherapists in this current study who graduated more recently reported having no more university-based psychology education than those who graduated many years previously. Consequently, a review of undergraduate programs in Australia may be necessary, to validate their perceptions, and university programs may need updating to reflect current preferences.

Physiotherapists in this current study described wanting more training in psychosocial strategies and perceived it to be beneficial at undergraduate and CPD levels. Yet, responses demonstrated an appreciation of professional boundaries, and recognition that training should be at a level appropriate to their scope of practice.

The preference was for simple, applied and practical psychosocial knowledge, that can be used effectively in rehabilitation scenarios. Physiotherapists are not expected to be psychologists, so knowledge does not need to exceed what is appropriate for rehabilitation settings. Nonetheless, the ability to address and manage basic issues within a physiotherapy session, and when to refer, is essential (Driver et al., 2019a; Heaney et al., 2012). O'Keeffe, George, O'Sullivan, and O'Sullivan (2019) suggested that not all psychosocial responses to pain or disability are symptomatic of a mental health disorder requiring referral to psychological services, and such responses can be managed within a physiotherapy session. Thus, CPD providers should ensure that training in psychosocial strategies is relevant, applicable and appropriate for specific physiotherapy settings.

Physiotherapists in this study cited improved assessment and management of psychosocial issues as perceived benefits of training, and considered it highly necessary based on their experiences with patients. Pettersson, Bolander Laksov, and Fjellström (2015), reported that challenges in daily practice, makes practitioners aware of knowledge gaps, leading them to pursue formal training to fill such gaps. Likewise, physiotherapists in our study acknowledged that more patients presenting with psychosocial responses, and emphasised wanting training on assessment and referral. This may suggest a lack of confidence in their understanding of referral pathways in Australia, and highlights an important knowledge gaps. Consequently, training regarding referral processes is essential, to ensure patients can be assessed and managed effectively, and provided the opportunity to access appropriate care.

Based on the findings from this study, delivery of CPD in psychosocial strategies should be both didactic and interactive, akin to a ‘flipped’ approach used in education settings. A flipped approach involves pre-work activities such as videos,

recorded lectures and readings, which guide the learner through a number of required components, followed by collaborative and interactive workshop, where learned concepts are applied (Bergmann & Sams, 2012; Pilcher, 2019). This combination would ensure both enhanced knowledge of underlying theory, and the opportunity to practice and apply new skills, collaborate, and problem solve. Previous research established that an online environment alone for learning strategies such as cognitive behavioural approaches was not be satisfactory, and recommended that further practical application is essential for translation of knowledge (Christou, Sellars, & Barker, 2019; Man et al., 2019). Haywood et al. (2012) emphasised that application of skills into clinical situations must occur soon after knowledge acquisition. Therefore, although online training platforms may be more accessible and cost effective, CPD providers should offer practical learning experiences, so knowledge of psychosocial strategies can be applied into clinical settings.

While a flipped approach may be preferable for the purposes of effective learning, this may be unattainable for some practice settings in Australia. Up to 20% of Australian physiotherapists are based in rural, regional and remote locations (Australian Institute of Health and Welfare, 2013). Reduced access to CPD opportunities, and inter-professional collaboration are identified barriers to CPD in rural healthcare settings (Curran, Fleet, & Kirby, 2006; Gunn & Goding, 2009). Therefore, flexible methods of CPD delivery are necessary to overcome such barriers (Maher et al., 2018). Recent advancements in technology provide the opportunity for the use of augmented reality tools (Unge et al., 2018), virtual workshops, and online video meetings. Such platforms may offer a comparable experience for physiotherapists in rural and remote locations; one that may enable involvement in interactive components of CPD.

Some physiotherapists in this study described wanting training to be delivered by experts, such as experienced practitioners with advanced knowledge in psychosocial aspects, who understand their role and practice constraints. Similarly, Cowell et al. (2019), reported that physiotherapists felt inspired watching experienced practitioners implementing strategies in real practice scenarios. Furthermore, physiotherapists reported that feedback from the experienced practitioners following observations of their own clinical behaviours was valuable, and ongoing support ensured continuation of the learning process (Cowell et al., 2019). Therefore, it is important that educators are experienced in a variety of physiotherapy settings and are well practiced in incorporating psychosocial approaches. Additionally, ongoing mentoring from experienced clinicians, whether face to face or via online platforms would facilitate an extended learning experience.

4.1 Implications for practice and a proposal of a training framework

The benefits of psychosocial strategies in physiotherapy with regards to patient outcomes have been recognised in the literature. Patients report reduced pain and disability (Coronado, Patel, McKernan, Wegener, & Archer, 2019; Guerrero, Maujean, Campbell, & Sterling, 2018) and less reliance on pain medication (Sullivan & Adams, 2010). Further patient benefits have been reported such as increased adherence to rehabilitation programmes (Skolasky, Maggard, Li, Riley, & Wegener, 2015), improved functional outcomes and quality of life (Coronado et al., 2019; Wilson & Cramp, 2018), improved return to work out comes, and reduced use of health care system (Sullivan & Adams, 2010). Finally, enhanced psychosocial wellbeing (Guerrero et al., 2018; Sullivan & Adams, 2010), and greater therapeutic alliance have also been reported by patients as benefits of the use of psychosocial strategies (Wilson, Chaloner, Osborn, & Gauntlett-Gilbert, 2017). The results of this

study may suggest that current training in psychosocial strategies is perceived by physiotherapists to be insufficient to equip them with the skills to assess and manage psychosocial responses and deliver appropriate psychosocial strategies to their patients. Additionally, a desire among physiotherapists in Australia for interactive training in psychosocial strategies is apparent. Interactive learning opportunities allow skills to be practiced and effectively applied in a contextually relevant way, ensuring changes in practice behaviours are achievable and sustainable (Robertson et al., 2003). If more physiotherapists' practice behaviours are transformed, this could result in improved psychosocial and functional outcomes for their patients. This may also reduce time spent in the healthcare system, minimise financial burden on the patient, and in the long term reducing the impact that injury, disability and chronic conditions have on the healthcare system.

Therefore, based on the responses from physiotherapists in this study, a framework addressing their reported training preferences is herein proposed (Figure 1). This framework may provide a foundation for the development of future undergraduate training or CPD packages, targeting teaching and learning of psychosocial strategies for physiotherapy practice. The framework illustrates and the main components outlined by physiotherapists in this study: preferred delivery; didactic and interactive, training preferences; physio-specific psychosocial content, practical application of strategies, assessment, and management of psychosocial issues, and outcomes; patient benefits and better practice. An approach using the proposed framework, could be piloted at both undergraduate and CPD levels, to confirm its effectiveness and identify areas for improvement. From the evidence in the literature and from the current study, it appears that such an approach would be beneficial both nationally and internationally.

Whilst the framework is aimed at training for physiotherapists, the fundamental components may be adapted for other health professions. In Australia, occupational therapists (Coleman, Driver, Parker & Lovell, 2019), audiologists (Bennet et al., 2020), and speech-language pathologists (Sekhon, Douglas & Rose, 2015), have also recently reported a lack of sufficient training in the management of psychosocial responses to health issues. Therefore, the results from this research and subsequent proposal of a framework, have implications for, and transferability to, other allied health professionals.

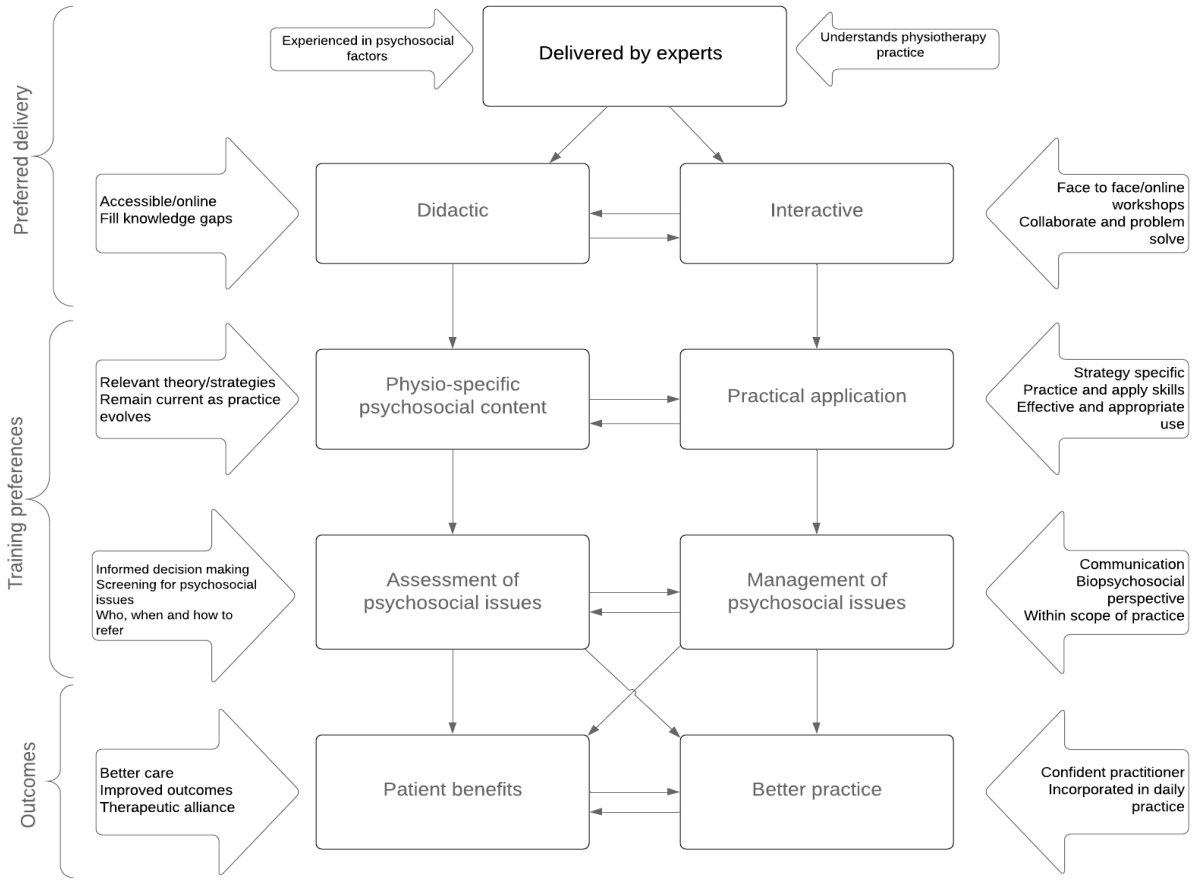

Figure 1. A framework for learning and teaching based on physiotherapists' reported training preferences with regards to psychosocial strategies.

4.2 Limitations

A strength of this research is the relatively large sample size, particularly for a qualitative exploration. Nonetheless, due to the nature of qualitative research being bound by the study's context, these results may lack generalisability. Future research could approach this topic of study from a quantitative perspective to enhance generalisability to broader contexts. Although we had textual data of up to 194 words for a single response, the nature of open-ended questions within an online survey did not allow for more in-depth exploration of ideas that arose. This resulted in generally shorter responses than other qualitative methods would have yielded. Despite our attempts to minimise the effects of self-selection bias, this study is potentially drawn from a biased sample of physiotherapists who responded due to an interest in this area. However, if this sample does not fully represent the physiotherapy workforce, there may be more physiotherapists with minimal training in psychosocial strategies, implying that the need for such training may be greater than reported.

Conclusion

This study provides novel information concerning Australian physiotherapists' reported training preferences regarding psychosocial strategies for practice. Findings indicate that physiotherapists report minimal training specific to psychosocial strategies, and the inclusion of physiotherapy specific psychology education, may be necessary at an undergraduate level. Furthermore, CPD providers should ensure that training in psychosocial strategies is relevant, applicable and appropriate for physiotherapy practice. Training with regards to assessment and management of psychosocial factors, and referral processes are essential. Training should be delivered by practitioners with advanced knowledge of physiotherapy practice and experience in psychosocial strategies, and physiotherapists should be afforded the opportunity for

both didactic and applied interactive learning. A framework is proposed which translates the results from this study to provide a foundation for development of future undergraduate training or CPD packages, targeting teaching and learning of psychosocial strategies for physiotherapy practice.

Author contributions:

Study design: CD, FO, GPL

Data Collection: CD

Data analysis: CD, FO, GPL

Manuscript writing: CD, FO, GPL

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